



Poughkeepsie-Dutchess County Transportation Council

Connections 2025

Air Quality Conformity

October 2003

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Air Quality Conformity

Part of the Long-Range Transportation Plan for Dutchess County

Background

Air quality has become an increasing concern as the nature and extent of pollution have become better identified and its adverse effects upon the public health made clearer. Federal legislation such as the Clean Air Act Amendments of 1990 (CAAA) and TEA-21 have detailed the linkage between transportation planning and air quality. The CAAA legislation set air quality standards through the National Ambient Air Quality Standards (NAAQS). In areas where that standard is not met, it must be demonstrated that transportation plans and projects will reduce motor vehicle emissions.

Dutchess County, Putnam County, and Northern Orange County have been reclassified as the Mid-Hudson Ozone Moderate Nonattainment Area.

Conformity Analysis Process

The PDCTC staff and NYSDOT Environmental Analysis Bureau (EAB) have completed the required analysis of **Connections 2025**. CAAA and TEA-21 regulations require that Transportation Planning documents, such as **Connections 2025**, demonstrate that they will make the air cleaner. The process of showing that the plan is in compliance with these requirements involves modeling all recommendations that affect air quality using an EPA computer program called MOBILE6. This air quality modeling software calculates expected rates of volatile organic compounds (VOC) and nitrogen oxides (NOx) that vehicles in Dutchess County are likely to emit in various conditions for milestone forecasting years.

As part of an Ozone Non-attainment area, the PDCTC must undergo a conformity process for Long Range Plans (LRP) and Transportation Improvement Programs (TIP). The critical elements of the conformity determination process are:

- Identify all non-exempt and regionally significant projects
- Transportation Modeling
- Regional Emissions Modeling
- Emissions Analysis (the emissions test for conformity)
- Public Participation and Review
- Conformity Determination Statement
- FHWA/FTA approval of MPO determination
- Interagency Consultation at all steps

The first step is determining which projects might affect air quality. In general, projects such as safety improvements, resurfacing, bridge repair, and bus replacements, which maintain current levels of service or capacity, are considered **exempt** from the conformity analysis. Similarly, projects that result in operations improvements, but do not increase capacity, like intersection widening, are also excluded from the analysis.

Regionally Significant projects are transportation projects (other than exempt projects) that are on a facility, which serves regional transportation needs and would normally be included in the modeling of a metropolitan area's transportation network. This includes, at a minimum, all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.

Non-exempt projects include highway and road projects that increase capacity by at least one travel lane, and transit projects that change capacity on a fixed route system. The Non-exempt determination is made if the project type is not found in the list of exempt projects derived from "Table 2 - Exempt Projects" in 40 CFR Part 93.126, 93.127 and NYCRR Part 240.27.

Figure 1: Air Quality Conformity Projects (Non-exempt or Regionally Significant)
(Dates reflect full operation)

Short-Term (2002-2006)

- Highway Projects
Rt. 9 Service Road (NYSDOT) - 2006
Rt. 9: CR 93 (Myers Corners Rd.) to Mesier Ave. (NYSDOT) - 2006
- Metro-North Parking Improvements
Wassaic Parking Expansion (MTA/Metro-North Railroad) - 2005
- Demand Management Projects
TDM Unit Activities - On-going
Regional Ridesharing Program (MetroPool) - On-going
Taconic State Parkway Park and Ride (NYSDOT) - TBD
Regional Bus Services - Dutchess to Putnam County (DC LOOP) - 2003

Long-Term (2007-2025)

- Highway Projects
CR 94 (All Angels Hill Rd.) @ CR 93 (Myers Corners Rd.) (DC DPW) - 2009
I-84 @ Rt. 9D (NYSDOT) - 2014
Rt. 9 - Rt. 52 to CR 93 (Myers Corners Rd.) (NYSDOT) - 2015
I-84 - Rt. 9D to Rt. 9 (NYSDOT) - 2015
CR 77 (Vassar Rd.) – Spring Rd. to CR 110 (Jackson Rd.) (DC DPW) - 2015
CR 40A (Saint Andrews Rd.) - Rt. 9 to Rt. 9G (DC DPW) - 2020
- Demand Management and CMAQ Projects
MNR Parking Expansion (System wide) - 2006+
TDM Unit Activities - On-going

Results

Dutchess County is part of the Mid-Hudson Ozone Non-attainment Area that includes Putnam and Northern Orange counties. As a "moderate ozone non-attainment area" an emissions reduction test is needed to demonstrate that Volatile Organic Compounds (VOC) and Nitrous Oxides (NOx) emissions in the "Action" scenario for each analysis year are less than baseline emissions (i.e.1990) to meet the conformity requirements for this type of area in the transportation conformity rule. Three years are considered for this conformity determination, "Action" years 2006, 2015, and 2025. Only the "Action" (Build) scenarios for these years are considered as allowed by the transportation conformity rule. A "No Build" comparison is not made.

This determination only covers Dutchess County. NYSDOT-EAB will take our results and join them with results from the Newburgh-Orange County Transportation Council (NOCTC) for Orange County to do an overall conformity determination for the Mid-Hudson Area. Putnam County, which is a part of the New York Metropolitan Transportation

Council (NYMTC) is under a waiver, per Public Law 107-230, until October 1, 2005, and therefore will not be factored into this analysis.

The results show that in Dutchess County in the year 2025, implementing the projects and actions called for in the plan will reduce emissions of VOC by approximately 18,503.64 kilograms per day, and NOx by about 18,336.42 kilograms per day compared with the base year of 1990 (Figure 2). In addition, for all the milestone years, emissions of VOC and NOx are estimated to be lower than they were in 1990.

Figure 2: Results of Conformity Evaluation – Dutchess County

Year	VOC		Nox	
	Emissions	Reductions*	Emissions	Reductions*
1990	21,232.77	n/a	20,686.90	n/a
“Action Year” 2006	8,387.74	12,845.03	10,947.12	9,739.78
“Action Year” 2015	4,013.72	17,219.05	4,734.21	15,952.69
“Action Year” 2025	2,729.13	18,503.64	2,350.47	18,336.42

**kg/day reduced*

The quantitative analysis demonstrates that **Connections 2025** would result in net emission reductions in all analysis years compared to 1990. Given that there are no Transportation Control Measures (TCMs) applicable to Dutchess County, this completes the conformity review. PDCTC Staff and NYSDOT-EAB have determined that **Connections 2025** is in conformance with the existing State Implementation Plan for air quality (SIP), and meets the requirements of the Clean Air Act Amendments of 1990 and the EPA's Transportation conformity rule. The basis for this determination is the regional emissions analysis that was conducted.

These are draft results and still need to be reviewed by the Interagency Consultation Group (ICG). Once they concur to these results and those from NOCTC, NYSDOT-EAB will perform the analysis for the Mid-Hudson Non-attainment area.

Commenting on the Air Quality Analysis for Connections 2025

Comment letters can be sent to Kealy Salomon, Transportation Program Administrator, at the address on the front cover of this document. **Written comments will be accepted until 4:00 p.m. on Friday, October 31, 2003.**

Scheduled Adoption of Connections 2025

The PDCTC Executive (Policy) Committee is scheduled to vote by mail ballot on the adoption of **Connections 2025** on or about **Friday, November 21, 2003.**

As part of the determination process we are required to prepare a Conformity Determination statement, which details all of the elements of the process. To obtain a copy of the determination statement you may contact the PDCTC by phone, fax or e-mail as shown on the cover of this document.

A DRAFT copy of **Connections 2025** is available on the PDCTC website at <http://www.co.dutchess.ny.us/pdctcconnections2025.htm>. To obtain a copy of the DRAFT **Connections 2025**, you may contact the PDCTC by phone, fax or e-mail as shown on the cover of this document.